Strides made in Bio-technology

2720. SHRI SURESH PACHOURI: Will the PRIME MINISTER be pleased to state:

(a) whether Government are aware of the recent strides made in various fields of Bio-technology, especially Biomass and Cell Culture research in Canada; if so, what are the details thereof and what is the status of work undertaken in these fields in India; and

(b) whether it is a fact that the progress in Bio-technology research and development has been very poor so far, including in various Technology Missions?

THE MINISTER OF STATE IN THE DEPARTMENT OF DEFENCE PRODUCTION AND SUPPLIES IN THE MINISTRY OF DEFENCE (SHRI SHIVRAJ PATIL): (a) The Government is generally aware of work in some fields of Biotechnology in Canada but it has no official or authenticated information of recent strides in biotechnology including biomass and cell culture research in that country. Hence it is not possible to make any comparison of recent strides made in Canada with the work undertaken in our country.

(b) No, Sir. Eventhough in India the R&D work in biotechnology, in an organised manner, may have commenced late, there always have been notable contributions by individual scientists and institutions of the country. Realising the importance of R&D in various fields of biotechnology, the Government had as early as in 1982 constituted the National Biotechnology Board in the Ministry of Science and Technology and in February 1986 a full fledged independent Department of Biotechnology has been established. As a result appreciable work is in progress for manpower development, creation of infrastructure facilities, creation of informative data base, specific research projects, development of products relevant to our country and for making easy the availability of essential chemicals and reagents needed by scientists in various fields of R&D in biotechnology. Even in respect of various technology mission the biotechnology R&D work has been progressing quite satisfactorly and according to schedules.

Technology Missions under the Seventh Five Year Plan

2721. SHRI SURESH PACHOURI: Will the PRIME MINISTER be pleased to state:

(a) whether 13 Technology Missions have been launched under the Seventh Five Year Plan; if so, what is the status of progress in respect of each one of these; and

(b) whether any of these projects, such as the one on embryo transfer, has been found to be unviable by one of the main participants *i.e.* the NDDB which is the main technical arm of Government in Dairy Science, as stated in the Indian Dairyman of November, 1986; if so, what corrective steps have been taken/are proposed to be taken?

THE MINISTER OF STATE IN THE DEPARTMENT OF DEFENCE PRODUCTION AND SUPPLIES IN THE MINISTRY OF DEFENCE (SHRI SHIVRAJ PATIL): (a) Yes, Sir. Five Technology Missions and 8 Science and Technology Projects to be implemented in mission-mode have been launched. These are:

Technology Missions:

(i) Vaccination and immunisation of vulnerable population, specially children.

(ii) Edible oil seeds — intensive cultivation and oil manufacture.

(iii) Better communcations.

(iv) Drinking water in every village and water management.

(v) Eradication of illiteracy.

Science & Technology Projects

(i) Development of Immunodiagnostics

(ii) Immunological approaches for fertility control.